

PATENT

Atty Docket No.: 200208849-1
App. Ser. No.: 10/758,229

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks.

By virtue of the amendments above, Claims 1, 3, 5, 21, 29, and 36 have been amended without prejudice or disclaimer of the subject matter contained therein. Therefore, Claims 1-42 remain pending in the present application, of which, Claims 1, 21, 29, and 36 are independent.

No new matter has been introduced by way of the claim amendments; entry thereof is therefore respectfully requested.

Drawings

The Official Action does not indicate whether the drawings filed on January 16, 2004 are approved. However, since the drawings have not been objected to, the Applicants will assume that the drawings are approved. Should this assumption be in error, the Examiner is respectfully requested to inform the Applicants of such error in any future correspondence.

Information Disclosure Statement

The indication that the documents cited in the Information Disclosure Statement filed on January 16, 2004 is noted with appreciation. It is also noted that the Information Disclosure Statement filed on July 20, 2005 contained only duplicate citations to those cited in the January 16, 2004 Information Disclosure Statement and have thus been crossed out by the Examiner.

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

Claim Rejection Under 35 U.S.C. §112, second paragraph

The Official Action sets forth a rejection of Claim 5 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claim 5 has been rejected, more particularly, on the basis that the terms "the agents" lack antecedent basis.

Claim 5 has been amended to correct this error and to recite that the one or more conditions are detected with location aware sensors attached to the vent tiles. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claim 5.

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

The Official Action sets forth a rejection of Claims 1-13, 17-25, and 27-42 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,058,253 to Munk et al.

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

For at least the reasons set forth below, Munk et al. fails to teach or suggest all of the features of at least independent Claims 1, 21, 29, and 36.

Claims 1, 29, and 36

Claims 1 and 29 of the present invention respectively pertain to a method of and a system for controlling cooling fluid provisioning through the use of, *inter alia*, location aware sensors. In addition, Claim 36 pertains to a computer readable storage medium having one or more computer programs for performing the method of Claim 1.

The location aware sensors (LAS's) are described on page 5 of the present specification as capable of being "auto-configured", which "generally refers to the ability of the LAS's to determine their locations with respect to other devices and/or other reference points." In addition, on page 28 of the present Specification, the LAS's are described as including "self-locating features" that enable the LAS's to determine their locations with respect to each other and to other reference locations. The "self-locating features" are also described in greater detail in copending and commonly assigned U.S. Patent Application Serial No. 10/620,272, which was incorporated by reference in its entirety on page 9 of the present Specification.

As disclosed in the 10/620,272 patent application, the LAS's contain various self-locating equipment that enable the LAS's to automatically determine their locations with respect to each other. The equipment comprises, for instance, various transmitters and receivers operable to determine the times required to transmit and receive signals sent between the LAS's and to thereby triangulate the locations of the LAS's with respect to each other. The equipment may also be employed to determine the location of a reference device, which may be used to fix the locations of the LAS's.

PATENT

Atty Docket No.: 200208849-1
App. Ser. No.: 10/758,229

In one regard, because the LAS's are configured to self-locate themselves with respect to each other, the locations of various components associated with the LAS's may also be autonomously determined. As such, the amount of time required with manually locating the positions of conventional sensors and various other components may dramatically be reduced through use of the claimed LAS's.

Claims 1, 29, and 36 have been amended in various respects to more clearly illustrate that the LAS's include equipment for autonomously determining the locations of the LAS's. It is respectfully submitted that Munk et al. fails to disclose at least this feature of the claimed invention.

The Official Action attempts to reject Claims 1, 29, and 36 by asserting that the smoke detectors 50 and the temperature sensors 88, 154 disclosed in Munk et al. read on the claimed LAS's. As disclosed in column 8, lines 36-41, the smoke detector 50 comprises an "ionization-type smoke detector...located so as to detect the presence of smoke or other particulate matter in the air..." Munk et al. also discloses in column 11, lines 12-22 that the temperature sensor "88 is located to sense the temperature...by measuring the deflection of a bi-metallic spring or by the use of a thermocouple or the like." Munk et al. moreover discloses that the "temperature sensor 154 (See FIG. 4) is located within the return air plenum 32 in a position to sample the temperature of the air drawn into the auxiliary return passageway and may be housed within the same housing as the return fan 40."

Munk et al. therefore discloses that the smoke detectors 50 comprise conventional smoke detectors and that the temperature sensors 88, 154 comprise conventional temperature sensors. In this regard, Munk et al. does not disclose that the smoke detectors 50 nor the temperature sensors 88, 154 are "location aware". In other words, Munk et al. fails to disclose that the smoke detectors 50 and the temperature sensors 88, 154 comprise equipment

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

which enables them to determine their locations with respect to each other. Moreover, the smoke detectors 50 and the temperature sensors 88, 154 are thus incapable of autonomously determining their locations as claimed in Claims 1, 29, and 36.

For at least the foregoing reasons, it is submitted that Munk et al. fails to disclose each and every feature claimed in Claims 1, 29, and 36 and thus cannot anticipate these claims. The Examiner is therefore respectfully requested to withdraw the rejections of Claims 1, 29, and 36 and to allow these claims.

Claims 2-20, 30-35, and 37-42 are also allowable over Munk et al. at least by virtue of their respective dependencies upon allowable independent Claims 1, 29, and 36. These claims are further allowable over Munk et al. for additional reasons. For instance, with respect to Claims 2 and 37, Munk et al. fails to disclose location aware sensors that are "auto-configuring".

The Official Action attempts to reject this feature by asserting that the central control apparatus 86 is somehow "programmed for automatically monitoring and tracking location, temperature conditions and smoke conditions at each rooms[sic] 25...wherein it can automatically provide exactly configuration location of each sensors 50, 88, and 154 in a specified/selected room 25..." In setting forth this rejection, the Official Action has apparently misconstrued the term "auto-configuring". This term has been defined in the present Specification as referring "to the ability of the LAS's to determine their locations with respect to other devices and/or other reference points." Clearly, for at the reasons set forth above, the sensors 50, 88, and 154 disclosed in Munk et al. are not "auto-configuring".

It appears, however, that the Official Action may have construed the central control apparatus 86 as somehow being able to "auto-configure" the sensors 50, 88, and 154. In making this assertion, the Official Action argues that the central control apparatus 86 is

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

programmed to "automatically monitor[ing] and track[ing] [the] location [of the sensors]".

Even assuming for the sake of argument that this argument is correct, however, there is absolutely no indication in the Official Action or found in Munk et al. that the central control apparatus 86 "automatically" tracks the locations sensors 50, 88, and 154. Instead, the locations of the sensors 50, 88, and 154 are most likely manually tracked and inputted into the central control apparatus 86. As such, the assertion in the Official Action that the central control apparatus 86 is able to "auto-configure" the sensors 50, 88, and 154 is clearly incorrect.

Claim 21

Initially, it is worth noting that Claim 21 has been amended solely to correct a typographical error. The amendment to Claim 21 has therefore not caused a change in the scope of Claim 21.

Claim 21 pertains to a system for controlling cooling fluid provisioning including, *inter alia*, a plurality of location aware sensors configured to determine their locations with respect to each other in a relatively autonomous manner.

The Official Action sets forth a rejection of Claim 21 on the alleged basis that all of the features claimed in Claim 21 are included in Claim 1. This rejection is clearly improper because Claim 21 as originally filed includes features that were not included in originally filed Claim 1, and the Official Action has thus failed to address each and every feature claimed in Claim 21.

More particularly, for instance, Claim 21 recites that "the location aware sensors [are] configured to determine their locations with respect to each other in a relatively autonomous

PATENT

Atty Docket No.: 200208849-1
App. Ser. No.: 10/758,229

manner". Because the Official Action rejected Claim 21 for the same reasons as those set forth for Claim 1, the Official Action has failed to address at least this feature in Claim 21.

Regardless of this omission, however, it is respectfully submitted that Munk et al. fails to disclose that the sensors 50, 88, and 154 are configured to determine their locations with respect to each other in a relatively autonomous manner. Instead, Munk et al. discloses that the smoke detectors 50 comprise conventional smoke detectors and that the temperature sensors 88, 154 comprise conventional temperature sensors. In this regard, Munk et al. fails to disclose that the smoke detectors 50 and the temperature sensors 88, 154 comprise equipment which enables them to relatively autonomously determine their locations with respect to each other. Accordingly, the smoke detectors 50 and the temperature sensors 88, 154 are thus incapable of autonomously determining their locations as claimed in Claim 21.

For at least the foregoing reasons, Munk et al. fails to disclose each and every feature claimed in Claim 21 and thus cannot anticipate this claim. The Examiner is therefore respectfully requested to withdraw the rejection of Claim 21 and to allow this claim.

Claims 22-28 are also allowable over Munk et al. at least by virtue of their dependencies upon allowable independent Claim 21.

Claim Rejection Under 35 U.S.C. §103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 14-16

Claims 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,058,253 to Munk et al. This rejection is respectfully traversed because Munk et al. fails to disclose the invention as set forth in independent Claim 1 of the present invention.

In setting forth the rejection of Claims 14-16, the Official Action asserts that it would have been obvious "to recognize that the plurality of sets of operators can be arranged into any rack or row arrangement that is not degrading the performance of air conditioning system for each of the areas or rooms within a building since a rack and/or row arrangement do not bring to any criteria to the venting and air conditioning system. It is not at all clear as to how this rejection applies to Claims 14-16.

However, what is clear is that even assuming for the sake of argument that the proposed modification of Munk et al. were somehow proper, the proposed modification would still fail to yield the present invention as claimed in Claim 1. As such, the proposed modification of Munk et al. also fails to disclose the features of Claims 14-16.

For at least the foregoing reasons, the Official Action has failed to prove that Claims 14-16 are *prima facie* obvious in view of the disclosure contained in Munk et al. The

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

Examiner is therefore respectfully requested to withdraw the rejection of Claims 14-16 and to allow these claims.

Claim 26

Claim 26 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Munk et al. in view of U.S. Patent No. 6,286,764 to Garvey et al. This rejection is respectfully traversed at least because the claimed invention as set forth in independent Claim 21 is patentably distinguishable over the disclosures contained in the Munk et al. and Garvey et al., considered singly or in combination.

As discussed above, Munk et al. fails to disclose the features of independent Claim 21. In addition, the Official Action relies upon Garvey et al. for its alleged disclosure of wireless communications between sensors and a microprocessor and therefore does not assert that Garvey et al. makes up for the above-described deficiencies in Munk et al. Moreover, Garvey et al. does not and can not be reasonably construed as making up for the deficiencies of Munk et al. discussed above.

The proposed combination of Munk et al. and Garvey et al., therefore, fails to disclose all of the features in independent Claim 21 and depending Claim 26. The Examiner is therefore respectfully requested to withdraw the rejection of Claim 26 and to allow this claim at least by virtue of its dependence upon allowable Claim 21.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

PATENT

Atty Docket No.: 200208849-1

App. Ser. No.: 10/758,229

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: January 18, 2006

By



Timothy B. Kang
Registration No. 46,423

MANNAVA & KANG, P.C.
8221 Old Courthouse Road
Suite 104
Vienna, VA 22182
(703) 652-3817
(703) 880-5270 (fax)